

Work Order ID 160779

Thursday, May 04, 2017 8:02:51 AM

160779

Page 1

Item ID: D500-572-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: MD369/MD500 Bearpaws
 Start Date: 5/8/2017 Start Qty: 3.00 ***3*** Cust Item ID:
 Required Date: 5/18/2017 Req'd Qty: 3.00 ***3*** Customer:
 Reference: SCHEDULED/C

Approvals: Process Plan: 21 Date: MAY 04 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9770	Rev A								
IIND500-572	RevA								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D500-572-011 CHG006								
160	Pick Kit	0.00							
160									
Packaging	Memo	0.00							
Packaging									

DAS
6
9-89
JUN 19 2017

3
DAS
27
9-89

JUN 20 2017

3
JUN 19 2017
DAS
6
9-89
DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Thursday, May 04, 2017 8:02:51 AM

160779

Item ID: D500-572-011

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: MD369/MD500 Bearpaws

Stop *NS2*

Start Date: 5/8/2017 **Start Qty:** 3.00

3

Cust Item ID:

Required Date: 5/18/2017 Req'd Qty: 3.00

3

Customer:

Reference: SCHEDULED/C

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

170 QC4- 100% Inspect kits for completeness

0.00

170

QC Memo

0.09

Quality Control

3 DAS 27 9-8

JUN 20 2017

180	0.00
-----	------

180

Packaging

Packaging	Memo	0.00
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Packaging	Identify and pack for shipping as per PPPD500-572-011
-----------	---

LOCATION: FG013

3 DAS
27
9-89

JUN 20 2017

190	QC21- Final Inspection - Work Order Release	0.00
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190

QC Memo

0.30

Quality Control

**DAS
21
9-88**

JUN 20 2017

DAS
21
9-89

JUN 20 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval				
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Picklist Print

Thursday, May 04, 2017 8:02:56 AM

Page 1

Work Order ID: 160779

160779

Parent Item: D500-572-011

D500-572-011

Parent Item Name: MD369/MD500 Bearpaws

Start Date: 5/8/2017

Required Date: 5/18/2017

Start Qty: 3.00

Required Qty: 3.00

Comments:

IPP Rev:C04.02.17Blank size changedKJ/JLM

IPP Rev:D 07-01-02 Was K10007 JLM

IPP Rev:E 08-01-09 Added Step 2 JLM Verified By:EC

IPP Rev:F 08-10-15 New Manufacturing Method JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN4-13A Bolt		Purchased	No			160	Each	528.0000	8	24			
-----------------	--	-----------	----	--	--	-----	------	----------	---	----	--	--	--

AN4-13A

Bolt

**

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

FG 20

122808 20

GA 70

m134634 19

m135470 51

over003 200

m137371 200

Return2017 8

m135470 8

ST344 230

m137321 230

137544

DAS
27
9-89

D2274

D2274

Radius Block

Manufactured No

160 Each 524.0000 8

**

24

DAS
6
9-89

DAS
28
9-89

Location Loc Qty Loc Code

FG 12

86855 12

ST004 352

155086 352

ST012a 160

157272 160

24

DAS
27
9-89

JUN 19 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, May 04, 2017 8:02:56 AM

Page 2

Work Order ID: 160779

160779

Parent Item: D500-572-011

D500-572-011

Parent Item Name: MD369/MD500 Bearpaws

Start Date: 5/8/2017

Required Date: 5/18/2017

Start Qty: 3.00

Required Qty: 3.00

D2435 Manufactured No

160 Each 5.0000 2 6

D2435

Bearpaw

DAS
27
9-89

**

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST446A

5

150969 X1

1

158849

4

160779 X5

D2529 Manufactured No

160 Each 408.0000 8 24

D2529

Washer

**

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST008

408

155073

108

157443

100

160151

200

160783

D5472-1 Manufactured No

160 Each 0.0000 4 12

D5472-1

Cushion

**

JUN 19 2017

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6
9-89

DAS
28
9-89

D5476-1 Manufactured No

160 Each 8.0000 4 12

D5476-1

Clamp

**

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

st533

8

159012

8

160784

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, May 04, 2017 8:02:56 AM

Work Order ID: 160779

160779

Parent Item: D500-572-011

D500-572-011

Parent Item Name: MD369/MD500 Bearpaws

Start Date: 5/8/2017

Required Date: 5/18/2017

Start Qty: 3.00

Required Qty: 3.00

MS21042L4

Purchased

No

160

Each

3,130.000

8

24

MS21042L4

Nut

**

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

148

m135058

148

OVER007

1400

m137371

1000

m137402

400

ST303

1572

m136986

3

m137166

12

m137321

1557

13754/

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

NAS1149D0463J

Purchased

No

160

Each

4,351.000

8

24

NAS1149D0463J

Washer

**

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

48

M135056

48

ST260a

4000

M137371

2000

M137381

2000

ST263

303

M137166

303

24

JUN 19 2017

DAS
6
9-89

DAS
28
9-89

QS200-M44S

Purchased

No

160

Each

16.0000

2

6

QS200-M44S

CLAMP

**

DAS
27
9-89

Location

Loc Qty

Loc Code

ST545

16

m133363

16

6

Thursday, May 04, 2017 8:02:56 AM

Shop Packet Print

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D500-572 REV. A OR LATER APPROVED REVISION AND
INSTALLATION FOR CONTINUED AIRWORTHINESS ICA-D500-572 REV. 0 OR LATER APPROVED REVISIONS

REF. TCCA STC: SH90-17
REF. FAA STC: SH849NE
REF. JAA STC: ACG.21NE2.104

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
160379
MCS

1.0 INTRODUCTION

It has come to DART's attention that the D2438 Clamps provided with D500-572-011 Bearpaw Kit at CHG 005 and earlier and D500-572-021 Bearpaw kit at CHG 006 and earlier might be too long.

2.0 PURPOSE

The purpose of this DSI (DART Service Instruction) is to change the clamp configuration for D500-572-011 Bearpaw Kits at CHG 006 and later and D500-572-021 Bearpaw Kits at CHG 007 and later and to introduce the DSI 9770-011 Clamp Kit for operators who wish to upgrade their existing D500-572-011/-021 Bearpaw Kits in service.

3.0 INSTRUCTIONS

These instructions reference Figure 1 of this service instruction. Figure 1 replaces Sections A-A and B-B of IIN-D500-572 (ref. Figures 2 and 3) and ICA-D500-572 (ref. Figures 32-1 and 32-2).

3.1 Jack up the aircraft and ensure the skidtubes are serviceable.

3.2 (i) For the D500-572-011 Bearpaw Installation: Position D2435 Bearpaw on the aft end of each skidtube so that both bearpaw clamps are located aft of the aft saddle as shown in Figure 2 of IIN-D500-572 and Figure 32-1 of ICA-D500-572.

(ii) For the D500-572-021 Narrow Bearpaw Installation: Position D2671 Bearpaw on the aft end of each skidtube so that both bearpaw clamps are located aft of the aft saddle as shown in Figure 3 of IIN-D500-572 and Figure 32-2 of ICA-D500-572.

3.3 The bearpaw may be relieved to clear wearshoe mounting screws provided the relief leaves 0.375" (9.53mm) thickness.

3.4 For the D500-572-011 and D500-572-021 Bearpaw Installations, the QS200M44S Clamps must be installed behind the forward D5476-1 Clamp to ensure that the bearpaw doesn't slip, as shown in Figures 2 and 3 of IIN-D500-572 and Figures 32-1 and 32-2 of ICA-D500-572.

3.5 Attach the D5476-1 Clamps and D5472-1 Cushions with the hardware shown in Figure 1 of this Service Instruction. Additional NAS1149D0463J (or AN960J0416) washers may be installed under the nuts to ensure 1.5-4 threads in safety on the bolts. Although not generally necessary, it is also acceptable to replace the AN4-13A bolts with longer or shorter AN4 bolts, if required.

CAUTION: The torque on the nuts should be limited to 20 in-lb (2.3 Nm)

3.6 Lower the aircraft.

3.7 Update the aircraft log book to indicate installation of the D500-572-011/-021 Bearpaw in compliance to DSI 9770.

4.0 WEIGHT AND BALANCE

This DSI has a negligible effect on weight and balance. For installation of the D500-572-011/-021 Bearpaws on high gear, the weight and balance numbers provided in IIN-D500-572 Rev. A and ICA-D500-572 Rev. 0 are still applicable. For installation of the D500-572-011/-021 Bearpaws on low gear, the weight and balance numbers provided in DSI 9290 Rev. A are still applicable.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 17.01.09
CERT. NO.: SH90-17
ISSUE NO.: 7

APPROVED

A	NEW ISSUE	MB	17.01.09
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9770	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CLAMP KIT	NTS
DATE	17.01.09	COPYRIGHT © 2017 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

5.0 PARTS LIST

The parts list for D500-572-011/-021 Bearpaw Kits are updated as follows:

Qty -011	Qty -021	Part Number	Description
X		D500-572-011	BEARPAW INSTALLATION
	X	D500-572-021	NARROW BEARPAW INSTALLATION
2		D2435	BEARPAW
	2	D2671	BEARPAW
8	8	D2274	RADIUS BLOCK
8	8	D2529	WASHER
4	4	D5472-1	CUSHION (REPLACES D2182B050)
4	4	D5476-1	CLAMP (REPLACES D2438)
8	8	AN4-13A	BOLT (WAS AN4-15A)
8	8	NAS1149D0463J	WASHER (OR AN960JD416)
8	8	MS21042L4	NUT (OR MS21042-4)
2	2	QS200M44S	CLAMP

Operators who wish to upgrade their existing D500-572-011/-021 Bearpaw Kits in service can procure the DSI 9770-011 Clamp Kit from DART:

Qty -011	Part Number	Description
X	DSI 9770-011	BEARPAW INSTALLATION
8	D2274	RADIUS BLOCK
8	D2529	WASHER
4	D5472-1	CUSHION
4	D5476-1	CLAMP
8	AN4-13A	BOLT
8	NAS1149D0463J	WASHER (OR AN960JD416)
8	MS21042L4	NUT (OR MS21042-4)
2	QS200M44S	CLAMP

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 17.01.09
CERT. NO.: SH90-17
ISSUE NO.: 7

APPROVED

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	MB	
CHECKED	ML	DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9770 SHEET 2 OF 3
APPROVED	HS	TITLE SCALE
DE APPR.	DS	CLAMP KIT NTS
DATE	17.01.09	COPYRIGHT © 2017 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DQA: _____ Date: _____



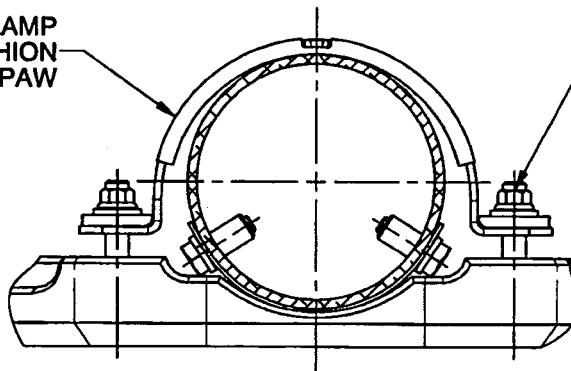
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

D5476-1 CLAMP
D5472-1 CUSHION
2 PL PER BEARPAW



MS21042L4 NUT, SELF-LOCKING
NAS1149D0463J WASHER
D2274 RADIUS BLOCK
D2529 WASHER
AN4-13A BOLT
4 PL PER BEARPAW

FIGURE 1: SECTION VIEW
(REPLACE SECTIONS A-A AND B-B
OF IIN-D500-572 AND ICA-D500-572)

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 17.01.09
CERT. NO.: SH90-17
ISSUE NO.: 7

APPROVED

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	MB	
CHECKED	ML	DRAWING NO. REV. A
MFG. APPR.	N/A	DSI 9770 SHEET 3 OF 3
APPROVED	HS	TITLE SCALE
DE APPR.	DS	CLAMP KIT NTS
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : ☐			

5.0 PARTS LIST

The parts list for D500-572-011/-021 Bearpaw Kits are updated as follows:

REFERENCE ONLY

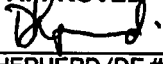
Qty -011	Qty -021	Part Number	Description
X		D500-572-011	BEARPAW INSTALLATION
	X	D500-572-021	NARROW BEARPAW INSTALLATION
2		D2435	BEARPAW
	2	D2671	BEARPAW
8	8	D2274	RADIUS BLOCK
8	8	D2529	WASHER
4	4	D5472-1	CUSHION (REPLACES D2182B050)
4	4	D5476-1	CLAMP (REPLACES D2438)
8	8	AN4-13A	BOLT (WAS AN4-15A)
8	8	NAS1149D0463J	WASHER (OR AN960JD416)
8	8	MS21042L4	NUT (OR MS21042-4)
2	2	QS200M44S	CLAMP

Operators who wish to upgrade their existing D500-572-011/-021 Bearpaw Kits in service can procure the DSI 9770-011 Clamp Kit from DART:

Qty -011	Part Number	Description
X	DSI 9770-011	BEARPAW INSTALLATION
8	D2274	RADIUS BLOCK
8	D2529	WASHER
4	D5472-1	CUSHION
4	D5476-1	CLAMP
8	AN4-13A	BOLT
8	NAS1149D0463J	WASHER (OR AN960JD416)
8	MS21042L4	NUT (OR MS21042-4)
2	QS200M44S	CLAMP

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 17.01.09
CERT. NO.: SH90-17
ISSUE NO.: 7

APPROVED

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	MB	
CHECKED	ML	DRAWING NO.
MFG. APPR.	N/A	DSI 9770
APPROVED	HS	TITLE
DE APPR.	DS	CLAMP KIT
DATE	17.01.09	SCALE
		NTS

REV. A
SHEET 2 OF 3

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WRITTEN PERMISSION FROM DART AEROSPACE LTD.

4. WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D500-572-011 Bearpaw Installation	8.5 lb 3.86 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	130 in 3.30 m	1105 in-lb 12.74 m-kg
D500-572-021 Narrow Bearpaw Installation	7.5 lb 3.41 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	130 in 3.30 m	975 in-lb 11.25 m-kg
D500-572-013 Bearpaw Installation	11.4 lb 5.17 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	128 in 3.25 m	1459 in-lb 16.80 m-kg
D600-572-015 Bearpaw Installation	11.4 lb 5.17 kg	0.0 in 0.0 m	0.0 lb-kg 0.0 m-kg	122 in 3.10 m	1391 in-lb 16.03 m-kg

5. PARTS LIST

Qty D500 -572 -011	Qty D500 -572 -021	Qty D500 -572 -013	Qty D600 -572 -015	Part Number	Description
X				D500-572-011	BEARPAW INSTALLATION
	X			D500-572-021	NARROW BEARPAW INSTALLATION
		X		D500-572-013	BEARPAW INSTALLATION
			X	D600-572-015	BEARPAW INSTALLATION
2				D2435	BEARPAW
	2			D2671	BEARPAW
		2		D2995	BEARPAW
			2	D2996	BEARPAW
4	4	4		D2182B050	RUBBER CUSHION
			4	D2182B060	RUBBER CUSHION
8	8	8	8	D2274	RADIUS BLOCK
4	4	4		D2438	CLAMP
			4	D2519	CLAMP
8	8	8	8	D2529	WASHER
		8	8	AN4-13A	BOLT
8	8			AN4-15A	BOLT
8	8	8	8	AN960JD416	WASHER
8	8	8	8	MS21042L4	NUT (OR MS21042-4)
2	2			QS200M44S	CLAMP
			4	QS100M24S	CLAMP

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Revision: A

Date: 01.02.21

Work Order ID 160779***160779***

Page 1

Thursday, May 04, 2017 8:02:51 AM

Item ID: D500-572-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: MD369/MD500 Bearpaws

Stop ***NS2***

Start Date: 5/8/2017 Start Qty: 3.00

3

Cust Item ID:

Required Date: 5/18/2017 Req'd Qty: 3.00

3

Customer:

Reference: SCHEDULED/C

Approvals:

Process Plan:

Date:

MAY 04 2017

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9770	Rev A								
IIND500-572	RevA								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D500-572-011 CHG006								
160	Pick Kit	0.00							
160									
Packaging	Memo	0.00							
Packaging									

CB

(3)

MAY 05 2017